

AMENDMENTS TO THE SPECIFICATION

Please replace line 21 on page 10 with the following section rewritten in amendment format:

NE Node data structure also includes a Boolean flag 52 that is either set or

Please replace line 22 on page 12 with the following section rewritten in amendment format:

where $s_k(t)$ is the score at time t , and ϕ is the node's parent, a node such that $a_{\phi k} \neq -\infty$. Further, $d_k(t)$ is defined to be the emission log probability of the current observation.

NE Please replace line 16-17 on page 14 with the following section rewritten in amendment format:

6. If $B = c$, then apply the dynamic programming equation: increment B .
7. If $B > c$, then simply link c before πB .

Please replace line 13 on page 20 with the following section rewritten in amendment format:

beam is $160 - 30 = 130$. Because the node having a probability score of